Rep●ced

THE FOLLOWING ARE THE ENGLISH TRANSLATION OF ANNEXES TO THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT (FRIST ARTICLE 34):

Amended Sheets (Pages 23-26a)

CLAIMS

1. A method for measuring vibration frequency of a multi-cantilever in which natural vibrations of a plurality of cantilevers having different natural frequencies are successively excited by modulation excitation in order to measure the vibrations with a laser Doppler meter.

2. A method for measuring vibration frequency of a multi-cantilever in which natural vibrations of a plurality of cantilevers having different natural frequencies are successively excited by modulation excitation in order to measure the vibrations with a homodyne interferometer.

3. The method for measuring vibration frequency of a multi-cantilever according to either Claim 1 or Claim 2, wherein the modulation excitation is a modulation optical excitation.

4. The method for measuring vibration frequency of a multi-cantilever according to either Claim 1 or Claim 2, wherein the modulation excitation is a modulation electrical excitation.

5. A method for measuring vibration frequency of a multi-cantilever in which natural vibrations of a plurality

of cantilevers having different natural frequencies are successively excited by constant light excitation in order to measure the vibrations with a laser Doppler meter.

6. A method for measuring vibration frequency of a multi-cantilever in which natural vibrations of a plurality of cantilevers having different natural frequencies are successively excited by constant light excitation in order to measure the vibrations with a homodyne interferometer.

7. A device for measuring vibration frequency of a multi-cantilever comprising:

(a) a plurality of cantilevers having different natural frequencies;

(b) means for successively exciting natural vibrations of the cantilevers by modulation excitation; and

(c) a laser Doppler meter for measuring the vibrations.

8. A device for measuring vibration frequency of a multi-cantilever comprising:

(a) a plurality of cantilevers having different natural frequencies;

(b) means for successively exciting natural vibrations of the cantilevers by modulation excitation; and

(c) a homodyne interferometer for measuring the

vibrations.

9. A device for measuring vibration frequency of a multi-cantilever comprising:

(a) a plurality of cantilevers having different natural frequencies;

(b) means for simultaneously exciting natural vibrations of the cantilevers by constant light excitation; and

(c) a laser Doppler meter for measuring the vibrations.

10. A device for measuring vibration frequency of a multi-cantilever comprising:

(a) a plurality of cantilevers having different natural frequencies;

(b) means for simultaneously exciting natural vibrations of the cantilevers by constant light excitation; and

(c) a homodyne interferometer for measuring the vibrations.

11. The device for measuring vibration frequency of a multi-cantilever according to any one of Claims 7, 8, 9, and 10, wherein the cantilevers are disposed in rows in an array.

12. The device for measuring vibration frequency of a multi-cantilever according to any one of Claims 7, 8, 9, and 10, wherein the cantilevers are disposed radially in a cluster so that the cantilevers are capable of being irradiated with a common excitation spot.

13. A scanning probe microscope using the device for measuring vibration frequency of a multi-cantilever according to any one of Claims 7, 8, 9, and 10 for self-exciting the natural frequencies of the cantilevers in order to detect an interaction between a specimen and a probe at an end of each cantilever as a change in a self-excitation vibration frequency, a self-excitation vibration amplitude, or a self-excitation vibration phase.

14. A mass/material detector using the device for measuring vibration frequency of a multi-cantilever according to any one of Claims 7, 8, 9, and 10 for self-exciting the natural frequencies of the cantilevers in order to detect a change in a mass adhered to a probe at an end of each cantilever as a change in a self-excitation vibration frequency, a self-excitation vibration amplitude, or a self-excitation vibration phase.